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# HVD358B

Variable Capacitance Diode for VCO

# HITACHI

ADE-208-849 (Z)

Rev. 0  
Jun. 2000

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## Features

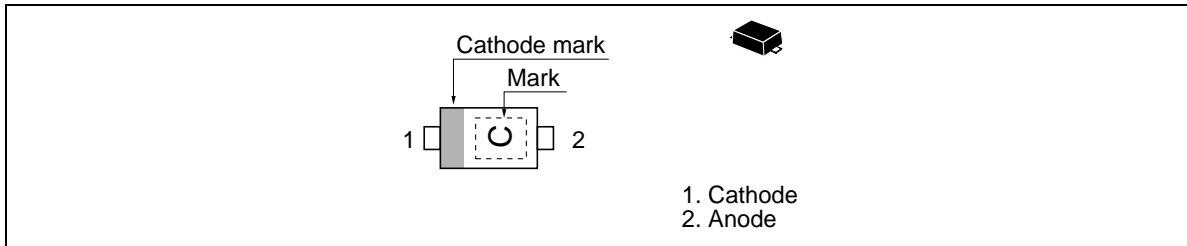
- High capacitance ratio. ( $n = 2.20$  min)
- Low series resistance. ( $r_s = 0.4 \Omega$  max)
- Good C-V linearity.
- Super small Flat Package (SFP) is suitable for surface mount design.

## Ordering Information

Type No.	Laser Mark	Package Code
HVD358B	C	SFP

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## Outline



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## HVD358B

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### Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	$V_R$	15	V
Junction temperature	Tj	125	°C
Storage temperature	Tstg	-55 to +125	°C

### Electrical Characteristics

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse current	$I_{R1}$	—	—	10	nA	$V_R = 15\text{ V}$
	$I_{R2}$	—	—	100		$V_R = 15\text{ V}, T_a = 60^\circ\text{C}$
Capacitance	$C_1$	19.5	—	21.0	pF	$V_R = 1\text{ V}, f = 1\text{ MHz}$
	$C_4$	8.00	—	9.30		$V_R = 4\text{ V}, f = 1\text{ MHz}$
Capacitance ratio	n	2.20	—	—	—	$C_1 / C_4$
Series resistance	$r_s$	—	—	0.4	$\Omega$	$V_R = 1\text{ V}, f = 470\text{ MHz}$

Note: Please do not use the soldering iron due to avoid high stress to the SFP package.

Main Characteristic

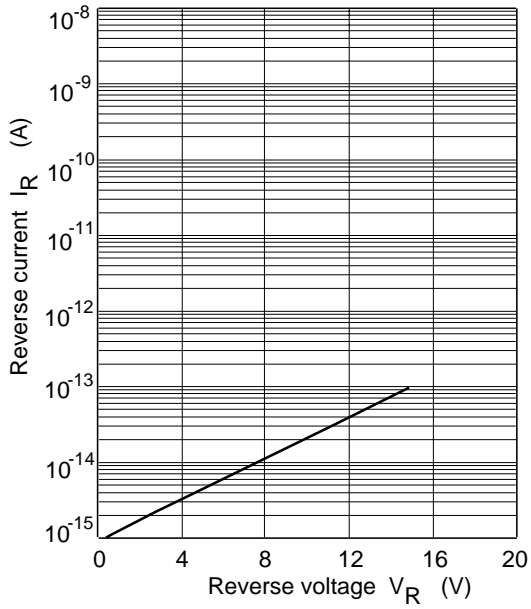


Fig.1 Reverse current Vs. Reverse voltage

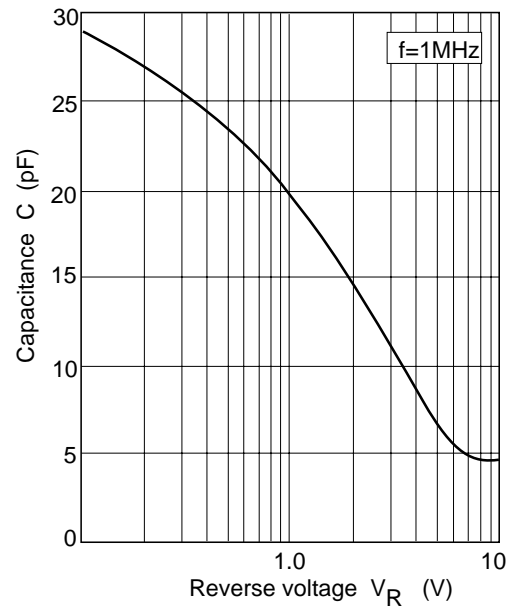


Fig.2 Capacitance Vs. Reverse voltage

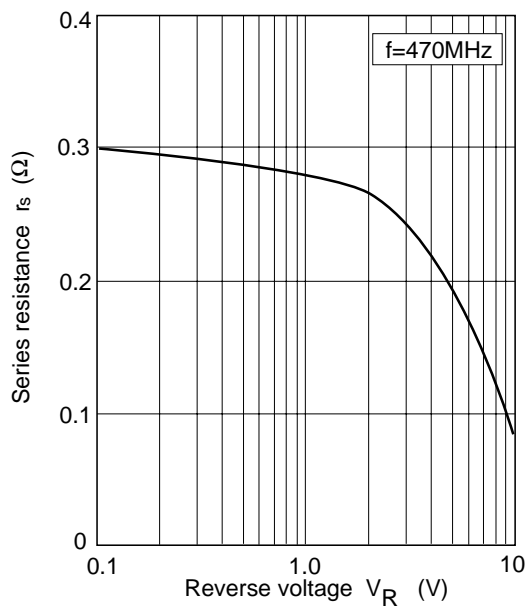


Fig.3 Series resistance Vs. Reverse voltage

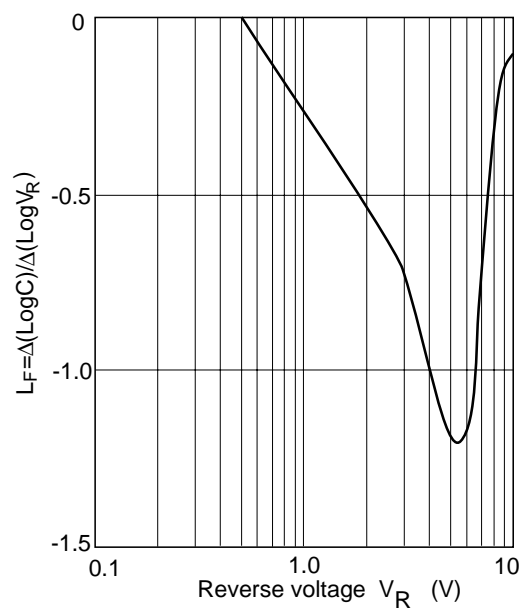
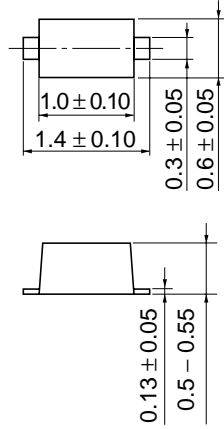


Fig.4  $L_F$  Vs. Reverse voltage

# HVD358B

## Package Dimensions

Unit: mm



Hitachi Code	SFP
JEDEC	—
EIAJ	—
Mass (reference value)	0.0010 g

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